E.M.L. Projects, Ltd.
6985 Union Park Ave.
Suite 545
Midvale, Utah 84047

Wape N

**Ecology Mining Co.**
**Deer Trail Project**

**SUBMITTED BY ECOLOGY MINING,** F Neil Smith **Agent**
(name)

**PLAN RECEIVED BY** _____ _____ _____
name title date

**GENERAL INFORMATION**

A. Name of mine project is Deer Trail.

B. Operation is lode exploration, development, and production.

C. This is a new operation and will not replace a previous plan of operations.

D. Proposed start up date is May 1, 1995.

E. Duration of the operation is unknown, it will depend on consistent values, established reserves, gold and silver prices, marketability of other materials, weather and any other unforeseen actions. The operators estimated duration is 5 to 15 years.

F. Concurrent reclamation and the operators best management practices will minimize end of season reclamation but any needed reclamation would begin as soon as mining has been completed. However, a year round mining program may be instituted with parallel reclamation.

G. Expected date for completion of all reclamation is within 24 months from the final cessation of mining, weather permitting.

**PRINCIPALS**

A. Ecology Mining Company
6985 Union Park Center, Suite 545
Midvale, Utah 84047
(801) 568-0800

B. Field representative is unknown at this time. U.S.F.S. will be notified 2 weeks before startup who will be the on ground representatives.

C. Owners of the claims is Deer Trail Corporation. (list any other owners)

D. Ecology Mining Company (Joint Venture Partner)
(Lionel V. Koon Acting Mine Manager)
Unico (Joint Venture Partner

**PROPERTY OR AREA**

A. Mc# Name Section Township Range

(all claims)

**DESCRIPTION OF THE OPERATION**

All operations will be in compliance with the Mining Law, Forest Service regulation, M.S.H.A., the State of Utah, and pertinent laws and regulations.

Access will be on State Highway 89 to Cottonwood Canyon County Road and to the pre-existing Forest Service Road (#)/50 to the Deer Trail Mine site, patented property, to the area of the pre-existing buildings, mine mouth, and to the exploration sites. All roads will be maintained pursuant to the 228 regulations under the best management practices of the operator. (see attached map of access routes attachment #1)

The mill site will be on patented property, use of the road to this site, to the area where the pre-existing old buildings are located, and the mine mouth will be on the existing roads. Buildings were built prior to public law 167 and are not included in this plan of operations. Exploration will be required in the future to establish ore reserves and feasibility. When additional roads or drill sites are needed appropriate maps, and engineering design will be provided to the U.S.F.S. for review in a timely manner. (map, sketch or drawing, show location of proposed layout of current operation.) Mining will first be done under ground and all milling will be done on the patented land. Existing roads will be used for haulage roads to the mill site.

An open pit mine operation may be utilized in the future, depending on the results from a current feasibility study that should be completed sometime within the next year. The U.S.F.S. will be provided with that determination.

Exploration would be ongoing with reclamation being done concurrently. We will begin testing to determine consistency of values and feasibility. Depending on variable conditions this project should be completed in 5 to 15 years or when the operator has determined that mining has been completed.

The following equipment is proposed at this time, but may vary as needed or be deleted: cats, front end loaders, backhoes, service trucks, graders, mine trucks, crawler tractors, fuel trucks, and various other maintenance equipment. A portable fuel tank may be added to the structure compound.
The travel on the road will be incidental and should not require dust abatement, but will be addressed on an as needed basis. Any slash will be used for natural screening for sediment control along roadways and there will be no slash burning or any other activity which could affect air quality.

To protect roadways and work areas from sediment production and erosion the operator will maintain an active best management practices program. The topography is diverse, site specific B.M.P.'s may vary to protect water quality and erosion.

A pipeline for water across federal land will be required to operate the processing plant on private property unless a private well is drilled. If excess water exists it may be used to sprinkle reclaimed surfaces that have been replanted or seeded in order to ensure a good root base. (attach a map of the proposed pipeline. attachment #3)

At this time, other than equipment maintenance products there will be no hazardous substances used on the property. All lubricants, spent oil, and etc. will be removed for proper disposal.

Fuel will be contained in a portable fuel trailer (pup) that will be drop shipped on site and will be kept in the equipment service area and fuel trucks. All other lubricants, oil and hydraulic fluids will be kept in shop storage area or service trucks.

In case of ground spill we will use absorbent pads and remove any soil that is contaminated. Proper authorities will be notified.

Explosives will be stored in the powder magazine in the maintenance compound area. Blasting cap storage will be in the existing magazine in the area of the water tank. Materials will be stored in a manner that is consistent with applicable laws and regulations. (attach detailed map, attachment #4)

In the future it is possible other chemicals may be used in the processing of the ore. At that time the U.S.F.S. and the State of Utah will be notified, application for the appropriate permits will be filed, and storage will be addressed that time. .

The operations location is geographically isolated so screening will not be used. Reclamation will become an ongoing project concurrent with mining as soon as site specific areas are available to begin reclamation.

**CUSTOM AND CULTURE:**

Historic Mining activity is prevalent in the Marysvale, Utah area. The specific mine site has been active since the late 1800's until the present.

**ECONOMIC CONDITIONS:**

Development of the mine will produce economic benefits in both Marysvale and Junction in Piute County, Utah. The mine and mill operation is expected to create about 30 permanent jobs plus an undetermined number of long term transportation related jobs. Initial mine/mill development will also generate an undetermined number of short term construction related jobs during the first two years.

In addition to the basic employment at the mine and mill, this industry could be expected to create secondary employment in "non-basic" business and industry in Piute and Sevier Counties. Using a secondary employment multiplier of 3 (i.e., for each person employed in the main industry, an additional three people will be supported in secondary business), the mining and milling operation provide a total employment benefit in excess of 120 people (30 primary and 90 secondary).

In view of high unemployment in recent years in both Sevier and Piute Counties, these new jobs will provide a significant increase in employment opportunities for this area. Mine and mill improvements and equipment will have significant value, providing a substantial addition to the tax base of the county.

**GEOLOGY:**

There may be permanent removal of ore in an open pit style of mining, and mineral removal will involve loss of this resource from the mine site. In accordance with the Mining Law and National Mineral Policy Act, efficient development and utilization of this resource is considered to be a beneficial impact.

**ACCESS:**

Access will be from State Hwy. 89 to the Cottonwood Canyon County Road then on to the pre-existing Forest Service Road
153# (?). Where possible pre-existing roadways will be used. If new roads are needed detailed maps and engineering information will be provided to the U.S.F.S. for their

review in a timely manner. All roads will have signs warning of truck traffic which will minimize potential accidents involving the general public.

Closure of the exploration and haul roads may be needed to prevent public traffic from interfering with mining operations.

**RECLAMATION:**

Reclamation is an ongoing effort and all areas that are disturbed will be reclaimed at the close of that portion of the operation, except for areas left open for the reason of discovery or to expose ore zones. Contouring, replacement of topsoil (if any), seeding, mulching and fertilization will be used. Test planting could begin as soon as feasible to quickly determine the best species for both temporary reclamation (to prevent erosion) and long term reclamation. The U.S.F.S. may already have a seed combination of preference, if not, the operator will work with the U.S.F.S. and the State of Utah to define the best seed types and seeding methods. Completion of reclamation work as soon as it is feasible will restore the land to other productive uses. Completion of this work concurrent with mining operations, where possible should reduce the overall cost of reclamation by minimizing handling of materials. Final reclamation in the project area (of all areas not previously disturbed) will begin as soon as possible after the operator determines that the mining activity has been completed. Where feasible, reclamation shall be conducted concurrently with mining activities throughout the life of the project.

**AIR QUALITY:**

The main source of emission during mine operations will be diesel and gasoline motors (haul trucks, service vehicles, transportation for personnel, heavy equipment for mining operations, generators, and heaters for support buildings) and particular matter from mining, loading, milling operations and from vehicles operating on dirt and/or gravel roads.

Mining and loading operations are expected to create only negligible amounts of dust. The ore will be exposed to the air for relatively short periods of time and the haul distance is very short.

Dust from the road is expected to be negligible due to the low traffic volumes and the probability of watering roadway for dust abatement, on as needed basis, if there are excessively dry periods when dust is created (wind, travel & etc.) in abnormal amounts. However, since the anticipated traffic level will be greater than at present, the overall

quantity of dust generated is expected to be similar to the present level of dust.

**WATER QUALITY:**

Since we will not conduct the majority of the operation in areas of running water, there will be little effect. Short term impacts on water resources may involve minor increases in sediment production from excavation, roadways and work areas. The operator will maintain an active best management practices program. Examples of possible B.M.P.'s the operator may use includes but is not limited to the following: water bars, silt fences, culverts, diversion ditches, and etc. The net long term effect of these activities will be to minimize the impact. The conceptual proposal of the open pit would involve cessation and restoration of the site will attempt to approximate the original condition, these effects are not expected to be significant. These impacts are unavoidable, since the mining location is fixed by the location of the resource.

**FIRE:**

Fires resulting from operations appear to be unlikely, since all vegetation will be removed from the majority of the working areas. Principal sites where fires might occur would be around the perimeter of the mine or maintenance facility sites and along roads. Since heavy equipment (scrapers and bulldozers), water trucks, and firefighting equipment will be available at the project area, it should be possible to rapidly contain any accidental manmade fire.

**FISH AND WILDLIFE:**

Operation of equipment at the mine and trucks on the road could disturb wildlife, with wintering deer and nesting birds being the most susceptible. Removal of vegetation could displace mobile wildlife species, such as birds, while sedimentary species might relocate. Alteration in the habitat and the length of time during which operations will occur in any one area will result in minimal loss to wildlife.

After rehabilitation, the area will be enhanced. The use of seral stage plants could even benefit species such as pronghorn antelope, mourning doves, wild turkeys, and other wildlife.

Since there is little to no running water, no stream alterations are proposed, impacts to fisheries within the project area are expected to be minimal using the proposed

sediment and erosion control measures. The main fisheries habitat lies totally outside of the project area.

**RECREATION:**

Due to the limited existing recreational use in the project area, mining activities are expected to have little impact. Some existing and newly constructed roads may be closed to public use for safety reasons. Since the newly constructed roads involve areas that were previously accessible by cross-country or jeep trail, this closure will not create any new impact.

The county roads in the area will remain open to use by the general public, as well as some existing mine roads. The improved condition of the roads in the area will improve the overall access within the project area and may result in some increased recreational traffic.

**CULTURAL:**

The Forest Service is required to conduct a cultural survey on the proposed mine site and we have reviewed the property and know of no cultural resources. If any cultural resources are exposed during the course of development and mining operations, appropriate measures will be taken.

**LAND USE:**

Mining operations will involve a substantial increase in the level of current mineral development operations, but will have a minimal effect on cattle grazing operations in the area.

The increased traffic levels on county roads and higher operating speeds will present some additional hazards for livestock, wildlife, and the general public. As the public becomes more familiar with the improved road condition, there may be some increase in use for recreational activities. These hazards will generally be similar to vehicle operations on other county roads.

Hazards to the public will be minimized by posting signs warning about truck traffic, and by prohibiting general public access along spur roads to the mine. Security personnel will be on duty while the majority of the mining is being completed. Fencing may be considered at open pit sites and around private property where processing will take place.

Hazards from cattle will be minimized by informing mine personnel and truck drivers about grazing use schedules in allotment areas. Grazing allotment permit holder should be notified of the mining operation.

**SOLID WASTE:**

All solid waste will be disposed of in a timely manner consistent with federal, state, and county laws and regulations. Specific dumps and/or haulage schedule have not been designed. However, federal ground will not be used and all work areas will be kept in an orderly condition. Ore dumps, tailing piles, and etc. will be contained on private property. There is a possibility that in the future the existing ore dump from the PTH Tunnel will be processed. At that time, the U.S.F.S. will be provided with the appropriate haulage, reclamation, and all pertinent information for their review.

**PROJECT OVERVIEW:**

This operation is of the conceptual basis with continuous testing to determine the consistency of values, including but not limited to the Burns Option and the South Fork Properties area. The initial mining on Federal land will be underground with a possible upgrade to an open pit operation. We consider both methods as feasible, we realize specific analysis of the open pit based on detailed information with site specific engineering of the pit site, contouring, sloping, and reclamation will need to be addressed at a future date. However, this is a component of this plan and should be evaluated as such. Even though other mitigating measures may need to be identified as development progresses. To ensure, that subsequent reviews by the U.S.F.S. does not cause mine shut-downs, the operator will submit to the U.S.F.S. complete, detailed site descriptions, maps, cross-sections, and engineering design and specification prior to the date proposed for commencement of operations. The U.S.F.S. should consider the wide based project at this time to ensure a smooth transition from one phase of the operation to the next.

Respectfully submitted,

F. Robert Faust

(name), agent
Ecology Mining Company